

CHEROKEE NATION ENTERPRISES

***WIND ENERGY  
FEASIBILITY STUDY***



Oklahoma – 8<sup>th</sup> in the Nation for wind



Cherokee Nation, 2<sup>nd</sup> largest Indian Tribe  
Approx. 260,000 members; 150,000 in area

Jurisdiction area = over 90,000 acres  
Chilocco land = 4,275 acres

Cherokee Nation Enterprises, a wholly-owned corporation  
of the Cherokee Nation.

- Employs 1,100

4 - Class II Gaming Casinos

6 - Retail Outlets

1 - 18-Hole Golf Course (Perry Maxwell design)

## Objective:

To conduct a feasibility study to determine possibilities of a wind farm.

Location – Kay County, North-central Oklahoma

Land consists of two tracts of fee & trust land = 4,275 acres

No trees to impede the wind.

## Approach:

Conduct environmental assessment

Conduct a cultural study

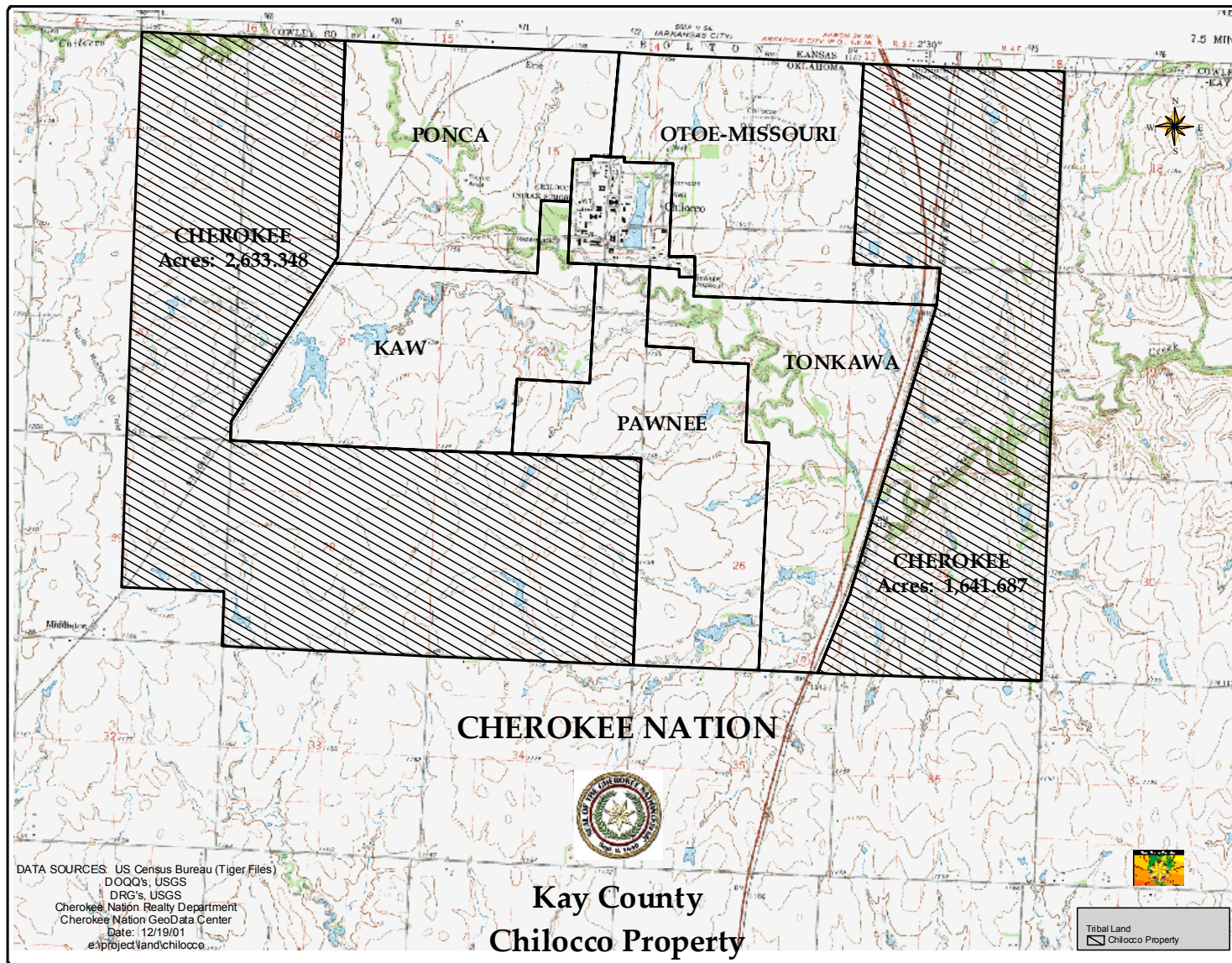
Make necessary contacts with utility companies

13-month study of wind using miniSODAR equipment

Analyze data gathered

Prepare business plan with recommendations to CNE Board & Council





## CNE Participants:

CEO – David Stewart

CNE Board of Directors

Lynn Ousley – Business Development Director

Carol Wyatt – Office & Grants Administrator

## Cherokee Nation participants:

Principal Chief - Chad Smith

Marvin Jones – Community Dev. Director

EPA Team

EPA assessment

Collect and analyze data at site

## Consultants:

DOE & NREL personnel

Ken Underwood, Meteorologist – AeroVironment

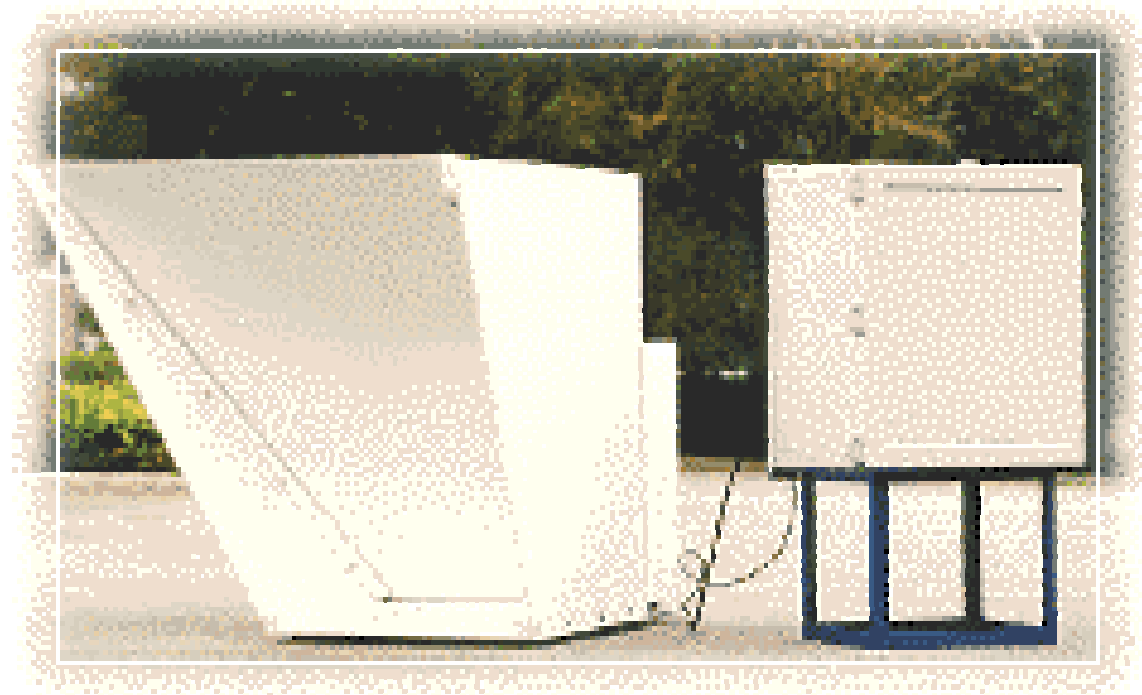
Additional contract personnel as needed

Bob Gaddis, Kaw Nation – to compare data

# Model 4000 MiniSODAR high-frequency doppler system

Wind speed accuracy  
2 degrees

Weight – 255 lbs.



- Uses patented 32-element phased array antenna to form 3 orthogonal beams needed to measure a complete three-dimensional wind profile.
- SODAR acoustic signal processor is engineered for reliable, unattended field operation.
- Data analysis software included to process SODAR data.
- Wind profile measurements – 15 to 200 meters in 5 meter increments
- Designed to accurately measure wind shears.

Selected for its portability – can be mounted on trailer

- Can move to any location in 14-county area for additional studies
- Battery or A/C powered



## Alternate plan for wind study to power Catoosa facilities:

- Casino & Sprung structure for Bingo
- Hotel
- Golf Course & new clubhouse
- Warehouse
- Green Room
- H.R. Modular
- Construction 4-plex modular
- Executive offices
- Old Clubhouse – H.R., Training, I.T. & Payroll
- Accounting Modular
- Cart Barn
- Smokeshop



# Cherokee Hills Resort & Casino

## Opening Summer 2004

### Hotel

- 150 Rooms
- Office Space
- Restaurants / Retail Stores
- Conference

### Casino Expansion

- 80,000 sq. ft.
- Bingo – 12,000 sq. ft.

18- hole Golf Course  
Perry Maxwell design

